APPENDIX A

RECONNAISSANCE AND SECURITY

Reconnaissance and security are two different missions; however, they are closely related at the tactical level. Units conducting reconnaissance provide some security. Units conducting security missions use reconnaissance techniques. This appendix discusses each.

RECONNAISSANCE

Reconnaissance provides information concerning the disposition of an enemy force, the enemy's intent, terrain conditions, and indications of nuclear, biological, or chemical contamination. Reconnaissance is undertaken by visual observation or other detection methods. It provides information about the activities and resources of an enemy or a potential enemy, or about the meteorologic, hydrographic, or geographic characteristics of a particular area. Reconnaissance is the precursor to all operations. It may be accomplished through passive means such as observation, or more aggressive methods such as probes, reconnaissance by fire, and other means to fight for information.

Forms of Reconnaissance

The traditional forms of reconnaissance are route, zone, and area. A ***route reconnaissance*** is a reconnaissance along a specific line of communications, such as a road, railway, or waterway. Its purpose is to provide new or updated information on route conditions and activities along the route. A ***zone reconnaissance*** obtains detailed information concerning all routes, obstacles (to include chemical or radiological contamination), terrain, and enemy forces within a zone defined by boundaries. A zone reconnaissance normally is assigned when the enemy situation is vague or when information concerning cross-country trafficability is desired.

An ***area reconnaisance*** obtains detailed information about the terrain or enemy activity within a prescribed area, such as a town, a ridgeline, woods, or other feature critical to operation. At its most basic level, an area reconnaissance could be made of a single point, such as a bridge or an installation.

In addition to the traditional forms of reconnaissance, the Army also uses reconnaissance in force. A ***reconnaissance in force (RIF)*** is conducted by a considerable force to obtain information and test enemy dispositions, strengths, and reactions. Reconnaissance and general purpose forces conduct this form of reconnaissance to aggressively develop information. The size and strength of the force must be sufficient to cause the enemy to respond in some manner as well as to protect the friendly forces involved in the effort. A RIF usually is conducted when the enemy is known to be operating in strength within a given area and sufficient intelligence cannot be developed by other means.

Reconnaissance can be passive or active. Active methods include mounted and dismounted reconnaissance, aerial platforms, or reconnaissance by fire. Passive methods include map and photographic reconnaissance and systematic observation. Systematic observation is use of human assets or technical means to watch a particular location, place, or thing. Technical means might be unmanned aerial vehicles or remotely emplaced sensors.

Divisions use highly trained cavalry and scout units to conduct successful reconnaissance missions. Leaders and soldiers in these units are the Army's experts in the art and techniques of reconnaissance. However, other units also accomplish reconnaissance missions. All maneuver forces can conduct reconnaissance missions. All tactical units conduct some sort of reconnaissance prior to commencing their operations. These actions include

You can never have too much reconnaissance.
George S. Patton, Jr.

local combat patrols, use of air defense and artillery radars, chemical detection, map and photo reconnaissance, interrogation of other technical intelligence sources, and MP patrols. The importance of reconnaissance operations to successful tactical operations means commanders normally use their most-suited units to perform these missions. METT-T drives this decision.

Not all intelligence collection assets are adequate for every situation. Commanders and staffs encounter problems, such as too few collectors for the amount of area they must observe, assets that cannot relocate as quickly as needed, or assets that are not fully effective for a specific environment, such as OOTW. These problems can degrade reconnaissance efforts, directly impacting the success of engagements and battles.

Commanders must conduct reconnaissance operations prior to all maneuver and fires. Successful reconnaissance precedes successful operations. Poor reconnaissance often results in unsuccessful operations and unnecessary friendly casualties.

Reconnaissance is not under the control of any one particular branch or unit. The division's reconnaissance system is based on complementary ground, aerial, and technical assets and is important in all the battlefield operating systems. All BOS

RECONNAISSANCE FUNDAMENTALS

- Place maximum reconnaissance force forward
- Orient on the enemy or recon objective
- Report all information rapidly and accurately
- Retain freedom to maneuver
- Gain and maintain enemy contact

provide information to meet the commander's requirements. Engineer and NBC reconnaissance are key to the IPB process. Engineers are responsible for obstacle intelligence, route and bridge reconnaissance, and general engineering reconnaissance. NBC reconnaissance informs commanders on NBC hazards in the area of operations as a component of battlefield management. Reconnaissance information provided from the BOS add detail to the commander's vision of the battlefield. (See Figure A-1.)

Ground reconnaissance elements gain and maintain contact with the enemy. They work through gaps and around the flanks and rear of the enemy, learning the strength, movements, composition, and dispositions of the enemy's main force. They also

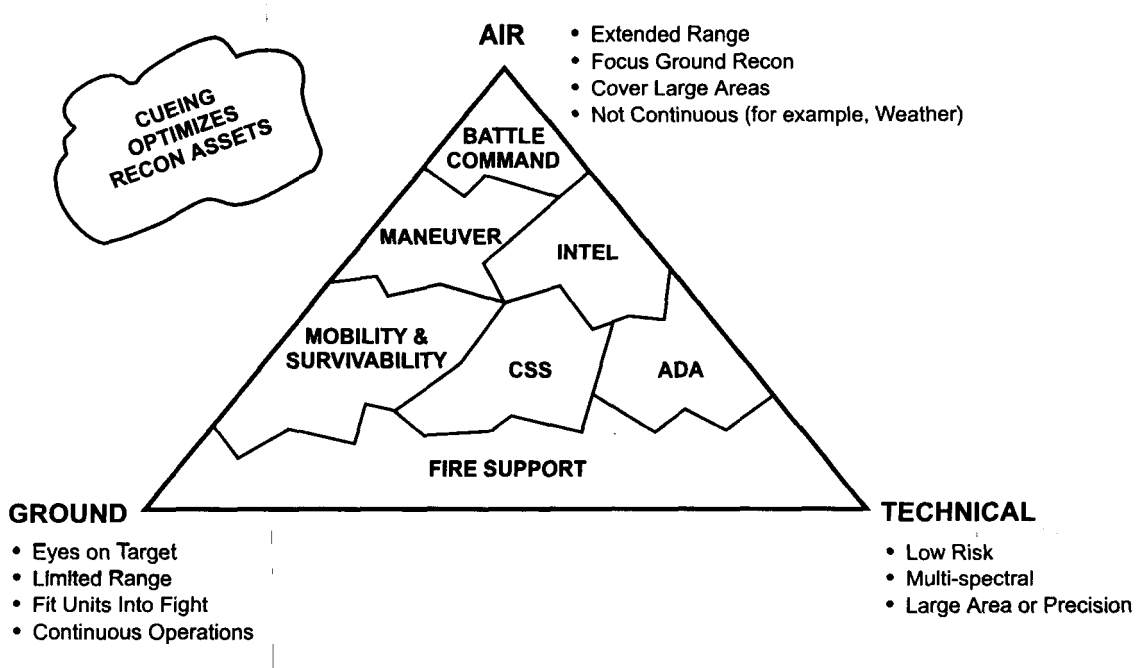


Figure A–1. Reconnaissance

learn the location of enemy reinforcements. Ground reconnaissance units can maintain continuous contact, fit or guide units into the fight (reconnaissance pull) at the preferred point of attack, and operate under weather conditions that preclude air reconnaissance. However, they are generally limited in the depth to which they can conduct reconnaissance. Ground reconnaissance is employed when and where air and technical reconnaissance assets are ineffective.

Air reconnaissance complements and extends the zone covered by ground reconnaissance. Successful aerial reconnaissance obtains information useful in effectively directing ground reconnaissance units. Under favorable conditions, aviation furnishes early information concerning the enemy's general disposition and movements to a considerable depth beyond the forward edge of the battle area (FEBA).

Technical reconnaissance is accomplished largely by systems. It includes all the electronic-gathering methods available at all echelons. Additionally, theater and national technical reconnaissance and surveillance systems downlink to the tactical commanders, providing near-real-time battlefield information.

Proper reconnaissance requires a coordinated and focused team effort and is accomplished through an integration of units and technical assets. Spot reports from maneuver and reconnaissance units, and technical reports and analysis from CS and CSS units, all combine to form information needed by the commander. The combination of all assets allows the commander to see the enemy with precision without having to use large formations to determine the enemy's location, disposition, or capabilities.

A key element of intelligence collection is cueing. Cueing involves the use of one or more forms of reconnaissance (air, ground, or technical) to provide information that directs collection by other systems. For example, Guardrail common sensor may intercept transmissions of a suspected enemy air defense site. This, in turn, may cue an unmanned aerial vehicle launch to confirm or deny this location. If detailed or first-hand reconnaissance is required, the commander may choose to dispatch a ground reconnaissance element. Cueing maximizes the efficient use of limited collection assets in support of multiple, often competing, intelligence collection priorities.

The Reconnaissance Objective

One of the reconnaissance fundamentals is to orient on the objective. The commander orients his reconnaissance assets by identifying a reconnaissance objective (such as an enemy force or terrain) within his zone of operation and providing any additional instruction in his guidance or tasks to his subordinate units in paragraph 3b of the OPORD. He commits reconnaissance assets based on their capabilities. He commits ground reconnaissance to gain vital information and in a way which minimizes the risk to his soldiers' lives.

The IPB process helps focus reconnaissance by identifying terrain locations that will confirm or deny an enemy course of action and dispositions. These areas are called named areas of interest (NAIs). For example, a battalion scout platoon would not normally attempt to conduct a detailed zone reconnaissance of an entire TF zone. It would recon in detail those assigned NAIs developed by the IPB process. The scout platoon would normally conduct an area reconnaissance of each NAI.

When the enemy situation is extremely vague or the requirement for terrain information (including obstacles) is significant, the reconnaissance objective also would be terrain-oriented. The reconnaissance unit would then conduct a detailed and time-consuming zone reconnaissance.

The G2 or S2 uses cueing to help focus limited reconnaissance assets, especially limited ground reconnaissance assets. The G2 or S2 builds the collection plan against each NAI. He targets the appropriate collection means or unit based on factors of METT-T. For example, JSTARS and Guardrail can cover large areas to alert or cue other assets once an enemy force or target is identified. Then UAVs or ground reconnaissance may be dispatched to verify the information and track the enemy for targeting purposes. Additionally, if a commander needs a reconnaissance conducted to achieve only a certain task he says so in guidance to his reconnaissance unit. For example, if based on all technical and HUMINT sources, a G2 can reliably say that the enemy is not in an area and the terrain appears to be "go" terrain without indications of obstacles, the commander may decide he doesn't need a

detailed reconnaissance effort forward of the division. He may direct a zone reconnaissance mission with guidance to move rapidly and report by exception terrain obstacles which will significantly slow the brigade's movement.

When the reconnaissance objective is a specific enemy force which is of vital importance, the commander may choose to use reconnaissance troops to find and maintain contact with it. In this case his guidance may include "...the enemy's reserve tank battalion is uncommitted. Tracking its activities is key to my plan. I want you to conduct an area reconnaissance in our sector between phase lines SUE and JANE. Our intelligence indicates that the battalion was last located near the village of Hampton. Your mission is to locate that battalion, maintain contact with it, and keep me informed of its movements."

When the objective is to locate an enemy force, the friendly reconnaissance unit will conduct only that terrain reconnaissance necessary to find the enemy and develop the situation in accordance with the commander's guidance and mission constraints.

When the G2 or G3 puts the entire intelligence picture together, the commander will see his intelligence gaps and collection efforts. He can then tailor reconnaissance missions and objective based on METT-T to fill these gaps.

In summary, the commander must focus his reconnaissance efforts. He does this by assigning missions and amplifying those with additional guidance. Specifically, the reconnaissance objective clarifies his intent.

Reconnaissance Responsibility

FM 100-5 states that "commanders get directly involved in deciding priorities of reconnaissance and intelligence operations. Commanders aggressively seek gaps or weaknesses in the enemy's defenses; study enemy defensive preparations and attempt to obstruct and frustrate those preparations; and plan to penetrate enemy security areas, overcome obstacles, avoid the strengths of established defenses, and destroy the coherence of the defense. All of this requires an active, predictive intelligence effort oriented on critical units and areas."

The commander must determine what information he already has and what he needs to know. Reconnaissance is then used to satisfy these information requirements. This information allows the commander to make sound decisions, conduct maneuver, and avoid being surprised by an enemy force. Information requirements are the basis for orders and missions governing the preparation of reconnaissance and surveillance plans. Commanders rely on their G2s for the majority of this analysis; however, the G2 receives assistance from other staff officers in their respective fields of expertise.

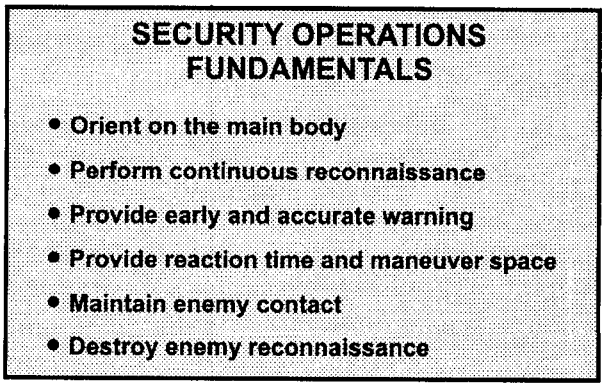
Staff responsibilities for reconnaissance are clear (although different staff sections have oversight over different reconnaissance means). While the division's chief of staff coordinates the efforts of the coordinating and special staff, the G3 has primary responsibility for the reconnaissance supporting an operation. The G3 normally has staff responsibility for ground units. The G2 normally has responsibility for the technical assets. They share staff responsibility for air assets.

The G2 normally has staff responsibility for special electronics mission aircraft (SEMA); the G3, normally for scout, attack, cargo, and utility aircraft. For example, if the G2 needs the divisional cavalry squadron to report certain PIR, he can request, through the G3, that the cavalry squadron perform these tasks. The G3 can go through the G2 to have aerial assets search for key targets.

Although coordinating and special staff officers have reconnaissance responsibilities, the G2 and the G3 must synchronize all of the planning efforts to conduct reconnaissance operations. The chief of staff remains aware of the reconnaissance activities and ensures that the G2 and G3 synchronize their efforts. The chief of staff intervenes when necessary, but the commander is the final authority.

SECURITY

FM 101-5-1 defines security as measures taken by a military unit, an activity, or an installation to protect itself against all acts designed to, or that may, impair its effectiveness. Security operations are inherent in every military operation. Security is essential to protect and conserve combat power. The purpose is to deny the enemy knowledge of what the friendly force is doing. Security may be achieved by establishing protective measures or by conducting deception operations that confuse and dissipate



enemy attempts to interfere with the force being secured. Effective security prevents the enemy from gaining an unexpected advantage over friendly forces.

Each commander is responsible for the security of his force. In the conduct of operations, the higher headquarters commander prescribes security measures for the force as a whole and coordinates those adopted by subordinate commanders. Subordinate commanders provide additional security as required for their own local protection.

At the tactical level, security forces protect the command against surprise attack and observation by hostile air and ground forces. They maintain freedom of maneuver by providing reaction time and maneuver space. Forces conducting security missions orient their movements on the force or facility they are assigned to secure. However, to be effective, all security systems must have an adequate warning system consisting of observers and the means to promptly communicate warning of hostile actions.

Traditional security operations are screen, guard, cover, and area security. ***Screen*** describes a force whose primary task is to observe, identify, and report information, and which fights only in self-protection. Further, the force maintains surveillance, provides early warning to the main body, impedes and harasses the enemy with supporting indirect fires, and destroys enemy reconnaissance elements within its capability.

Guard describes a force whose primary task is to protect the main force by fighting to gain time, while also observing and reporting information, and to prevent enemy ground observation of and direct fire against the main body by reconnoitering, attacking, defending, and delaying. A guard force normally operates within the range of the main body's indirect fire weapons.

Cover describes a force operating apart from the main force to intercept, engage, delay, disorganize, and deceive the enemy before he can attack the covered force. Cover is also the security mission of any body or detachment of troops that provides security for a larger force. It may be by observation, reconnaissance, attack, defense, or any combination of these methods. Cover forces may accept decisive engagement if action fits within the senior commander's intent.

Area security results when a force's mission is to secure a specific area. Area security actions could include area reconnaissance; rear operations; and security of designated personnel, equipment, facilities, and critical points. Applications of area security missions are convoy and route security.

All forces have a security responsibility and are capable of conducting security operations. Commanders may consider giving a cover force mission to a maneuver brigade or battalion when weighing the METT-T factors in the planning process. However, cavalry, scouts, and aviation are generally considered as the maneuver units organized and equipped for conducting security missions. As in reconnaissance operations, all units-combat, combat support, and combat service support-contribute to the unit's overall security.

Counter-reconnaissance is not a distinct mission; rather, it is a result of security operations. Units conduct traditional security actions (screen, guard, cover, and area security) as well as many other activities (such as OPSEC, deception, and physical security). The purpose is to counter the enemy's reconnaissance and, in doing so, defeat or destroy hostile reconnaissance forces.

RECONNAISSANCE AND SECURITY ASSETS

Although reconnaissance and security assets vary in specific units, tactical systems normally found in corps, division, brigade, and battalion are outlined in this section.

The ***corps*** conducts reconnaissance and security operations using many systems and organizations, both organic and external. Primary organic assets

for focused collection include the military intelligence (MI) brigade and the armored cavalry regiment (ACR).

The corps MI brigade directly supports the corps by providing multidisciplined IEW support to the entire corps. Collectors organic to the corps MI brigade include—

- The Guardrail common sensor.
- The unmanned aerial vehicle-short range (UAV-SR).
- Long-range surveillance units.
- Counterintelligence and interrogator personnel.

The Guardrail common sensor provides signals intelligence (communications and electronics intelligence) direction-finding (DF) capability with targetable accuracy. The analysis and control element (ACE) collects reported information from the Guardrail common sensor, analyzes this information, then disseminates it through the All Source Analysis System (ASAS). Information meeting the need for urgent dissemination is redundantly passed down to division and brigades in near real time via a commander's tactical terminal (CTT).

Depending on the configuration, the UAV-SR, when fielded in FY 96, will provide—

- Near-real-time live video imaging.
- Forward-looking infrared radar (FLIR) imagery.
- Moving target indicator.
- Electro-optical freeze-frame photo and retransmission capability.

Through automated processors, the corps also processes and disseminates intelligence from theater and national sensors. The JSTARS ground station module (GSM) receives and analyzes moving target indicators and synthetic aperture radar data. The Imagery Processing and Dissemination System (IPDS) and the Tactical Radar Correlation (TRAC) system receive and exploit imagery from national- and theater-level sensors in near real time. They then disseminate secondary imagery to customers via such systems as Trojan SPIRIT and the mobile integrated tactical terminal (MITT). The Electronic Processing and Dissemination System (EPDS) receives and processes signals intelligence data from national and theater systems and disseminates that data to customers via other systems.

The ACE is the synergistic focus of intelligence and reconnaissance at the corps level. Under the G2's supervision, this element fuses all intelligence and reconnaissance data to provide the commander a coherent picture of enemy operations. The ASAS is the primary processing system at both corps and division. It is a "one-stop shopping store" for computer-assisted all-source IEW processing, analysis, reporting, technical control, target identification and nomination, and collection management. The primary MI long-haul communications pathway is provided by the Trojan SPIRIT (current) satellite communications terminal. The Trojan SPIRIT has capabilities for secure voice and data transmission, including graphic products, facsimile, and secondary imagery transmission.

The ACR is the primary maneuver force performing reconnaissance and security operations for the corps. The regiment with its ground and aviation assets is uniquely suited to perform reconnaissance (route, zone, area, and reconnaissance in force), and security (screen, guard, cover, and area) operations. The ACR'S subordinate armored cavalry squadrons conduct screen and guard security and all forms of reconnaissance. The air cavalry squadron can participate in security missions as well as all forms of reconnaissance.

Other reconnaissance and security resources available to the corps include aviation, military police, fire support, air defense, and chemical assets. The aviation brigade can augment or perform missions alone. MP assets from the MP brigade conduct reconnaissance and area security missions to ensure uninterrupted use of main supply routes, and other key areas in the corps rear. Corps artillery possesses target acquisition systems; corps air defense units provide early warning from and target acquisition of enemy air activity. Finally, corps chemical units perform NBC reconnaissance.

The ***division*** conducts reconnaissance and security similar to the corps. Its primary organic assets for focused collection include the MI battalion and the cavalry squadron.

The division MI battalion directly supports the commander, G3, and G2 by providing dedicated multidisciplined battlefield IEW support to the

division and its subordinate maneuver brigades. Collectors organic to the division include—

- Quickfix.
- Unmanned aerial vehicle-short range (UAV-SR).
- Ground surveillance radar (GSR). Long-range surveillance detachments (LRSDs) (in some divisions).
- Counterintelligence and interrogator personnel.

The ground-based common sensor (GBCS), which consists of communications and electronic intelligence, direction finding, and jamming, replaces the following four current systems:

- AN/TRQ-32, (Teammate), very high frequency (VHF) collection and direction finding.
- AN/TSQ- 17, (Traffic Jam), high frequency (HF)/VHF collection and jamming.
- AN/TSQ-38, (Trailblazer), VHF collection and DF.

The MITT, CTT, and GSM provide the division the ability to receive and exploit imagery and SIGINT national, theater, and corps systems. The cavalry squadron is the division's primary reconnaissance and security organization. The squadron can conduct route, zone, and area reconnaissance, and reconnaissance in force. It can conduct screen and guard (if augmented) security operations. The division also receives information from other organic units (aviation, field artillery, military police, engineer, chemical, and air defense) to complete the intelligence picture.

The ***division brigade*** does not have an organic reconnaissance or security organization (separate brigades have their own cavalry troop). Army doctrine states that a brigade normally does not act independently, but serves as part of a division or corps. Brigades may task their subordinate battalions with reconnaissance and security operations, but brigades normally rely on the division G2, the direct support MI company, the cavalry squadron, subordinate maneuver battalions, and other attached and adjacent units for reconnaissance and security.

The DS MI company provides the brigade the following assets:

- GSR.
- Remotely monitored battlefield sensor system (REMBASS).
- HF and VHF collection and jamming (TLQ-17, TRQ-32).
- UAV-SR.
- JSTARS ground station module.
- Commander's tactical terminal.
- Analysis and control element.

Brigades may conduct security operations (advance, flank, or rear guard) for a larger force. They may also participate as part of a division in a corps covering force, or be the divisional covering force. Brigades also execute internal reconnaissance and security actions by tasking subordinate elements or DS intelligence assets.

The ***battalion*** is the lowest tactical echelon with its own organic reconnaissance assets. The battalion scout platoon can conduct route, zone, and area reconnaissance, and surveillance and screen missions. The platoon along with other battalion maneuver elements and technical reconnaissance assets from other attached or supporting organizations provide reconnaissance for the battalion task force. The MI battalion assets are normally task-organized to the brigade level. The brigade may elect to push GSRs and REMBASS down to battalion level.